

A NEW SPECIES OF THE GENUS *MICROPEPLUS* LATREILLE FROM SICHUAN, CHINA (COLEOPTERA, STAPHYLINIDAE, MICROPEPLINAE)

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Abstract A new species of the genus *Micropeplus* Latreille is described under the name of *Micropeplus xiaoe* sp. nov., with color photos of habitus, head, pronotum, elytra, metasternum, 3rd to 7th tergites of abdomen, 8th sternite, and aedeagus provided. The new species was found in the dead weeds of the Yele Nature Reserve, Mianning County, Sichuan, China. A key to the Chinese species of the genus is provided. Type specimens are deposited in the Life Science College, China West Normal University, Sichuan.

Key words Staphylinidae, Micropeplinae, *Micropeplus*, new species, Sichuan, China.

The genus *Micropeplus* Latreille, 1809 is one of six genera of the subfamily Micropeplinae. Members of this genus can be easily distinguished from those of other genera of the subfamily by head narrowly deflexed in anterior margin, pronotum with prominent cells, elytra each with 2 or 3 well marked costae, and abdominal tergites 4–6 with 2 or 3 carinae.

Eighteen species and subspecies of this genus were reported to occur in China: seven reported from Taiwan, four from Zhejiang, two from Yunnan, two from Sichuan, one from Heilongjiang, one from Jilin, and one from Shanghai.

In this paper, we describe one new *M.* species, *Micropeplus xiaoe* sp. nov. from Sichuan, China, and also offer with color photos of habitus, head, pronotum, elytra, metasternum, 3rd to 7th tergites of abdomen, 8th sternite, and aedeagus. A key to all the Chinese species of the genus is provided.

The type specimens were collected in the dead weeds of the Yele Nature Reserve, Mianning County, Sichuan. The type specimens are deposited in the Life Science College, China West Normal University, Sichuan.

A key to the Chinese species of *Micropeplus*.

1. Elytra impunctate 2
Elytra punctate 5
2. Each elytron with three discal costae 3
Each elytron with two discal costae, Zhejiang
..... *Micropeplus dentatus* Zhao et Zhou
3. Head arcuate at anterior margin 4
Head angulate at anterior margin, Taiwan
..... *M. nitidipennis* Campbell
4. Body larger, 1.9–2.1 mm, elytra more transverse, Yunnan
..... *M. yunnanus* Watanabe et Xiao
Body smaller, 1.5 mm, elytra less transverse, Jilin; Croatia,
Russia *M. laevipennis* Eppelsheim

5. Head with anterior margin acuminate in male, and female arcuate or subtriangular 6
Head with anterior margin arcuate or subtriangular, not sexually dimorphic 10
6. Aedeagus with median lobe nearly as long as parameres, Sichuan *M. uenoi* Watanabe
Aedeagus with median lobe longer than parameres 7
7. Median lobe rounded at apex, Taiwan
..... *M. clypeatus* Campbell
Median lobe triangulate or acuminate at apical portion ... 8
8. Median lobe triangulate at apical portion, Zhejiang
..... *M. fulvus japonicus* Sharp
Median lobe acuminate at apical portion 9
9. Parameres distinctly sinuate, Sichuan
..... *M. nomurai* Watanabe
Parameres nearly parallel in basal two-third in ventral view, Zhejiang *M. unicornis* Yang
10. Each elytron with three discal costae, Yunnan
..... *M. rougemonti* Watanabe
Each elytron with two discal costae 11
11. Abdominal tergites 4–6 with two carinae, Taiwan
..... *M. obscurus* Campbell
Abdominal tergites 4–6 with three carinae 12
12. Aedeagus with parameres asymmetric 13
Aedeagus with parameres symmetric 14
13. Right paramere with two long subapical setae, left with two long and one short subapical seta, Taiwan
..... *M. spinatus* Campbell
Parameres each with one subapical seta, Sichuan
..... *M. xiaoe* sp. nov.
14. Mesotibia of male serrate on medial margin in addition to large tooth, Taiwan *M. taiwanensis* Campbell
Mesotibia of male not serrate, with only one large tooth on medial margin 15
15. Aedeagus with parameres without apical setae, Zhejiang
..... *M. sinensis* Watanabe et Luo
Aedeagus with parameres with apical setae 16
16. Parameres slightly shorter than median lobe 17
Parameres distinctly shorter than median lobe, Heilongjiang

- *M. longipennis* Kraatz
 17. Parameres each with two or three stout subapical setae,
 Taiwan *M. yushanensis* Campbell
 Parameres each with four or five stout subapical setae,
 Taiwan *M. sinuatus* Campbell

***Micropeplus xiaoae* sp. nov.** (Figs 1 – 13)

Diagnosis. This species is very similar to *M. spinatus* Campbell from Taiwan, China, but may be distinguished from the latter by its median area of pronotum with sixteen cells enclosed by costae, median impression of metasternum slightly broad, elongate and more than half as long as metasternum, interspace between humeral and pseudopleural costae without punctures, and parameres of aedeagus only with each a short seta near apical fourth on the outer side. This species also resembles *M. hiromasai* Watanabe *et* Shibata from Japan, but its pronotum with sixteen cells enclosed by costae, elytra coarsely punctate, interspace between humeral and pseudopleural costae without punctures, and aedeagus with different structure of internal sac.

Description. Head black; disc of pronotum, elytra and abdomen dark brown to blackish brown; basal eight segments of antennae, maxillary and labial palpi, legs, and sides of pronotum reddish brown; basal half of apical segment of antennae blackish brown.

Length 2.5 – 2.7 mm.

Male. Head subtriangular, very transverse, about 1.75 times as broad as long, narrower than pronotum (ratio 0.58); anterior margin of head broadly triangular, not sexually dimorphic. Vertex with longitudinal median carina extending from level of middle of eyes to base of head, area on each side of carina slightly impressed, one line transverse carina and two oblique ones at middle on inner side of each eye, and space between carinae granulate; clypeus visible from above, with slightly deflexed anterior margin and granulate surface. Antennae nine-segmented, usually receding onto the under surface of pronotum for their reception; 1st segment robust than 2nd to 8th segments, lightly opaque and about equal in length to 2nd and 3rd combined; 2nd slightly shorter and narrower than 1st and narrowed apicad; 3rd to 6th gradually decreasing in length, longer than broad and narrower than 2nd; 7th and 8th transverse; apical segment largest and oval, with dense pubescence.

Pronotum subtrapezoidal, about 2.1 times as broad as long, widest at base, shorter than elytra (ratio 0.57) and about equal in width to it; sides irregularly sinuate, with 2 – 4 very small teeth; anterior margin broadly emarginated and almost straight in middle, posterior margin bisinuate; anterior angles produced forwards, posterior ones almost

rectangular; surface finely granulate; lateral areas broadly explanate; median area elevated dorsally, with sixteen cells enclosed by costae, three on anterior half, six on both sides of middle, and seven on basal half.

Scutellum subtriangular with finely granulate surface.

Elytra subquadrate, about 1.2 times as broad as long, slightly widened apicad, diacal area slightly convex, abruptly and transversely depressed in apical fifth along apical margin; each elytron with four costae, one sutural, two discal and one humeral; interspaces of costae with irregular rows of coarse punctures, 1st interspace with two rows, 2nd with three rows, 3rd with four rows; pseudopleural costa present between humeral and epipleural costae, slightly sinuate and abbreviated in front though hind almost connected with epipleural costa; interspace between humeral and pseudopleural costae without punctures, interspace between pseudopleural and epipleural costae with three irregular rows of coarse punctures. Wings developed.

Median impression of metasternum slightly broad, elongate, more than half as long as metasternum, legs with meso- and metatibiae each armed with a large triangular tooth on inner margins.

Abdomen narrowed apicad, 3rd to 7th tergites each strongly transversely depressed at basal half, 3rd with one short longitudinal carina in middle, 4th to 6th each with three longitudinal carinae throughout length of tergite, 7th with three abbreviated carinae in apical half. Eighth sternite shallowly triangularly emarginate in middle of apical margin and slightly depressed before emargination.

Aedeagus broad and short, median lobe curving to ventral side in apex; parameres fused with median lobe, right paramere longer than left one, broadly enlarged and dorso-ventrally compressed in apical third, with one short seta; left paramere narrow, apex curved medially, with a short subapical seta.

Female. Similar to male, though differing from the latter by 8th sternite lacking emargination of apical margin and meso- and metatibiae without large tooth on inner margins.

Holotype male, China, Sichuan, Yele Nature Reserve, Mianning County (28°50'N – 29° N, 101°59'E – 102°16'E; alt. 2 600 m), 19 – 20 July 2005, collected by XIAO Fan, ZHOU Ming, and SONG Dian-Yuan. **Paratype:** 21 ♂♂, 15 ♀♀, same data as holotype.

Habitat and Distribution. The species was found in a pile of the dead weeds, it is at present known from the type locality in Western Sichuan.

Etymology. The specific epithet is a patronymic in honor of the collector of the holotype, XIAO Fan.



Figs 1 – 13. *Micropeplus xiaoae* sp. nov. 1 – 2. Dorsal habitus. 1. Male. 2. Female. 3. Head. 4. Pronotum. 5. Elytra. 6. Epipleura. 7. Metasternum. 8. 3rd to 7th tergites of abdomen. 9 – 10. 8th Sternite. 9. Male. 10. Female. 11 – 13. Aedeagus. 11. Ventral view. 12. Lateral view. 13. Dorsal view.

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REFERENCES

- Campbell, J. M. 1968. A revision of the new world Micropeplinae (Coleoptera: Staphylinidae) with a rearrangement of the world species. *The Canadian Entomologist*, 100 (3): 225 – 267.
- Campbell, J. M. 1992. A review of the family Micropeplidae (Coleoptera) of Taiwan. *Bulletin of the National Museum of Natural Science*, 3: 209 – 224.
- Campbell, J. M. 1995. New species and records of

- Micropeplidae (Coleoptera) from Taiwan. *Bulletin of the National Museum of Natural Science*, 5: 117–130.
- Herman, L. H. 2001. Catalog of the Staphylinidae (Insecta: Coleoptera), 1758 to the end of the second millennium. I. Introduction, history, biographical sketches, and Omaliine group. *Bulletin of the American Museum of Natural History*, 265: 1–650.
- Li, L-Z and Zhao, M-J 2001. *Micropeplus shanghaiensis*, a new species (Coleoptera: Staphylinidae) from East China. *Japanese Journal of Systematic Entomology*, 7 (1): 91–94.
- Löbl, I. and Smetna, A. 2004. Catalogue of Palaearctic Coleoptera. Vol. 2. Hydrophiloidae-Histeroidea-Staphylinoidae. Apollo Books, Stenstrup. 1–942.
- Watanabe, Y. and Shibata, Y. 1964. On the genus *Micropeplus* Latr. of Japan with descriptions of a new and an unrecorded species (Col.: Staphylinidae). *Journal of Agricultural Science (Tokyo)*, 10 (3): 67–70.
- Watanabe, Y. 1975. A revision of the Japanese species of the genus *Micropeplus* Latreille (Coleoptera: Staphylinidae). *Kontyû*, 43 (3): 304–326.
- Watanabe, Y. and Luo, Z-Y 1991. The micropeplids (Coleoptera) from the Tianmu Mountains in Zhejiang Province, East China. *Elytra*, 19 (1): 93–100.
- Watanabe, Y. 1995. A new micropeplid species (Coleoptera) from Yunan Province, Southwest China. *Elytra*, 23 (2): 245–249.
- Watanabe, Y. and Xiao, N-N 1996. A new species of the group of *Micropeplus sculptus* (Coleoptera: Staphylinidae) from Mt. Jizu Shan in Yunan Province, Southwest China. *Edaphologia*, 57: 1–6.
- Watanabe, Y. 2000. Two new micropepline beetles (Coleoptera: Staphylinidae) from Sichuan Province, Southwest China. *Elytra*, 28 (1): 45–53.
- Yang, C 1995. Coleoptera, Micropeplidae. In: Wu, H (ed.), *Insects of Baishan Mountain Eastern China*. x viii + 586 pp. China Forestry Publishing House, Beijing. pp. 218–219.
- Zhao, C-Y and Zhou, H-Z 2004. A new species of the genus *Micropeplus* (Coleoptera: Staphylinidae: Micropeplinae) in China. *Entomologia Sinica*, 2 (3): 235–238.

中国四川寡节隐翅虫属一新种 (鞘翅目, 隐翅虫科, 寡节隐翅虫亚科)

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摘要 记述中国四川寡节隐翅虫属 *Micropeplus* Latreille 1 新种, 肖氏寡节隐翅虫 *Micropeplus xiaoe* sp. nov., 提供了它的体形、头部、前胸、鞘翅、后胸腹板, 腹部第3~7背板、第8腹板和雄性外生殖器的彩图。新种采自四川冕宁县的冶勒自然保护区的已死杂草中。编制了这个属的中国种检索表。模式标本保存在西华师范大学生命科学学院。

肖氏寡节隐翅虫, 新种 *Micropeplus xiaoe* sp. nov. (图1~13)

新种与来自台湾的 *Micropeplus spinatus* Campbell 很相似, 但这个种的前胸中部有16个由脊范围的室, 后胸腹板的中

凹稍宽并超过后胸腹板长度之半, 肩脊和伪缘脊之间无刻点, 雄性外生殖器的侧叶端部仅有1根短刚毛。这个种也与日本的 *M. hiromasai* Watanabe et Shibata 相似, 但新种的前胸有16室, 鞘翅刻点粗, 肩脊和伪缘脊之间无刻点, 以及雄性外生殖器内囊的结构不同, 与之有别。

正模 ♂, 四川冕宁县冶勒自然保护区, 2005-07-19~20, 肖凡、周敏、宋甸远采。副模: 21 ♂♂, 15 ♀♀, 采集记录同正模。

词源: 新种种名源自正模采集者肖凡的姓氏。

关键词 隐翅虫科, 寡节隐翅虫亚科, 寡节隐翅虫属, 新种, 中国, 四川。

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